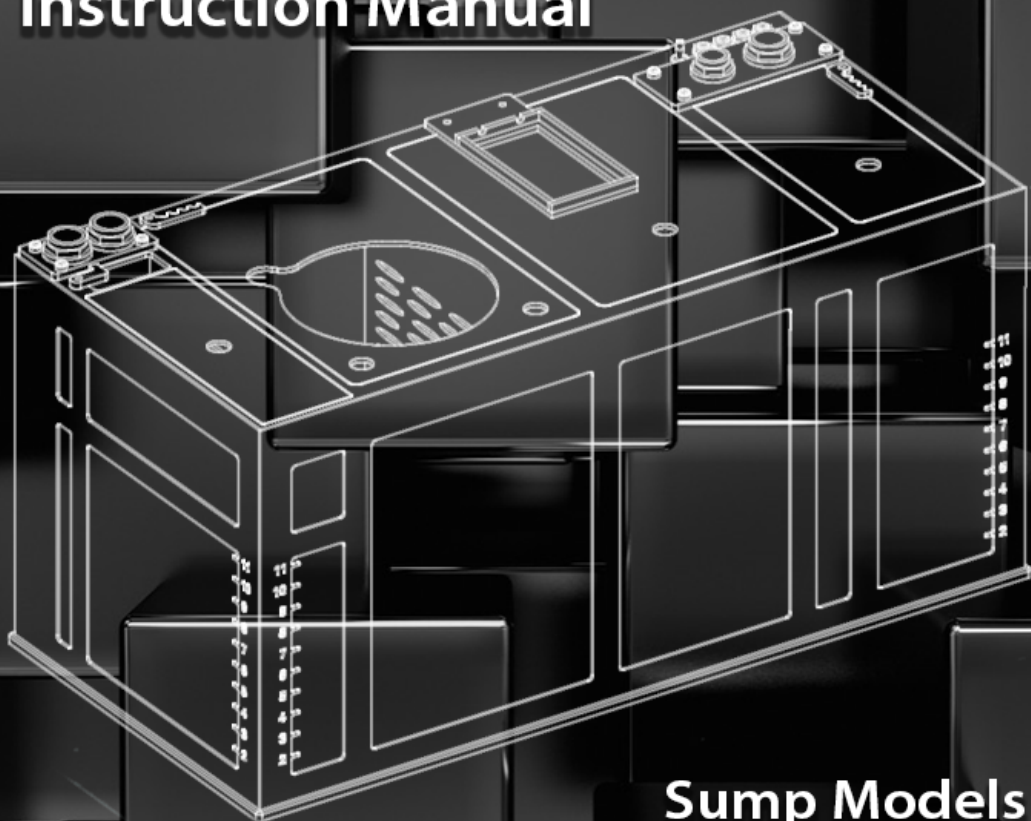


# NUVO R F S

## Reef Filtration Series

### Instruction Manual



### Sump Models

RFS-22 RFS-27

RFS-39 RFS-50

# Ready Set Reef!

Welcome to the Innovative Marine NUVO Reef Filtration Series. The Most advanced and complete Innovative Marine Sump system to date. Read through the manual for all safety and installation instructions prior to use.

Your NUVO RFS offers a wealth of features designed to save you time and keep you safe so you spend less time cleaning up and more time diving into your aquarium. If you have questions about your setup, give us a call at 866-368-7941 or email: [info@innovative-marine.com](mailto:info@innovative-marine.com) and we will gladly walk you through it.

Let's get started.

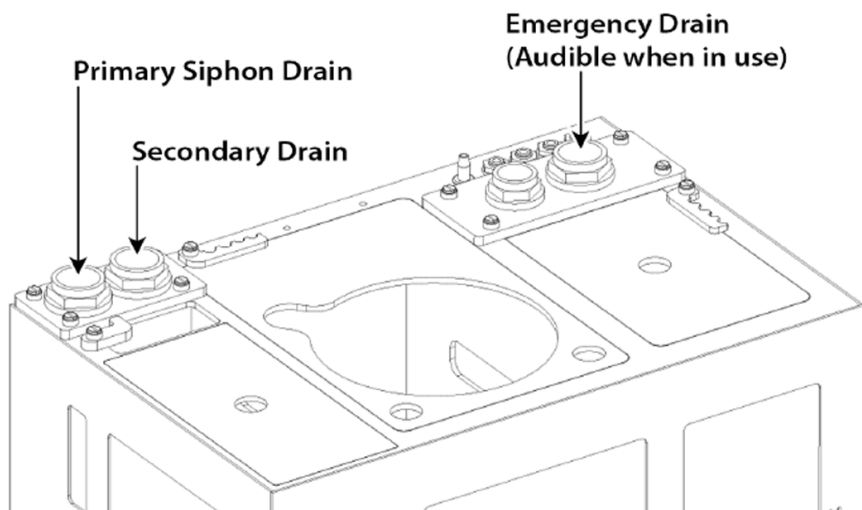
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## Drain Installation

Insert the aquarium's siphon drain pipe into the Primary Siphon Drain bulkhead. Make sure to have a gate valve above this bulkhead to adjust the siphon drain rate.

Insert the aquarium's secondary drain pipe into the Secondary Drain bulkhead. The aquarium's emergency drain is inserted into the Emergency Drain bulkhead.

\*Note: When the Emergency Drain is in use, there will be a gurgling sound. This is to alert you that the Primary and Secondary drains are impeded or clogged.

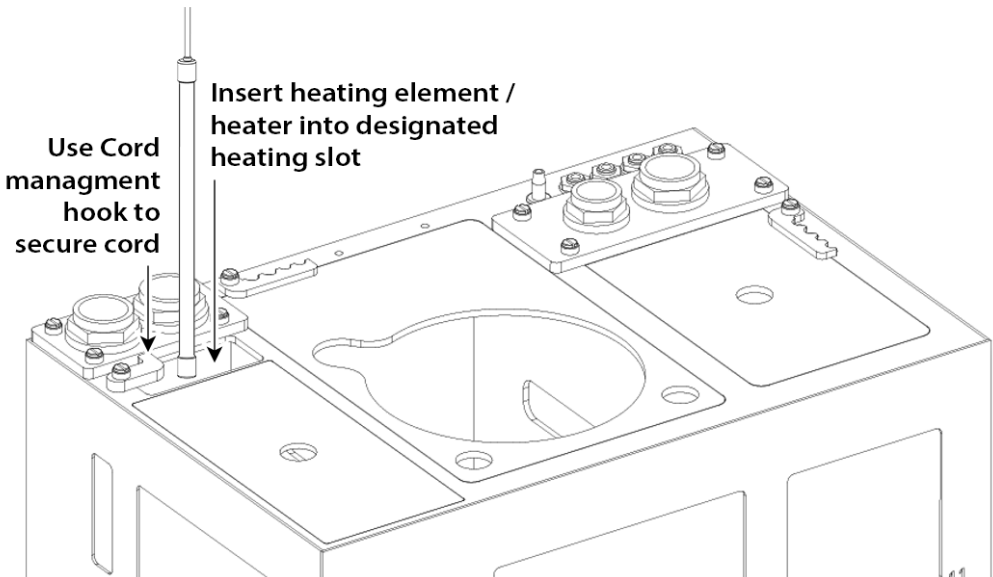


## Designated Vertical Heater Chamber

Place your heater, vertically, into the designated heater chamber after the siphon drain chamber.

Use the cord management hook to secure the heater/heating element cord.

Conduct proper schedule maintenance (by following the heater's instruction manual) on your heating element / heater to ensure it remains at optimum performance.



\*Innovative Marine is not responsible for any damages that may be caused by improper maintenance, malfunction, or misuse of other manufacturers products, including heating elements and or heaters.

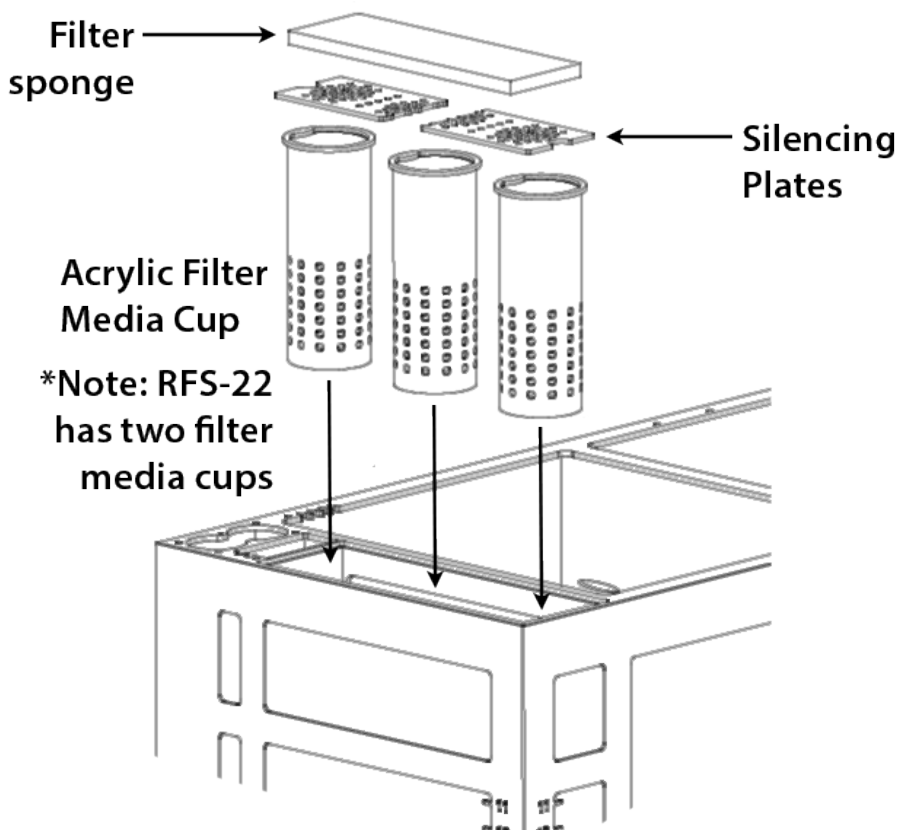
## Drain Chamber - Silencing Plates, Sponges, & Acrylic Filter Media Cups

The Drain Silencing Plates and Filter sponge keep your aquarium clean and quiet. The acrylic filter media cups hold filtration media. Fiber balls are included in the media cups which trap floating detritus & other toxic particles in the water.

Maintenance:

At least once a week, clean the filter sponge, silencing plates, and fiber balls by rinsing them with RO/DI water.

Replace the sponge and fiber balls at least once a month to maintain optimal filtration and water clarity.



## Acrylic Filter Media Cups | 4" Filter Socks

The acrylic filter media cup or 200 micron 4" filter socks can be used in the drain chamber. Choose to use either or both. 4" Filter socks not included.

High Performance Fiber balls are easy to remove & replace. You can upgrade your filtration media to a trio combo of Fiber balls, ROX carbon (removes chemicals and odor) and Ferric oxide phosphate remover. Phosphate is a nutrient that nuisance algae uses to grow. Combo set sold separately, item# 0003. Make sure allow proper water flow by not over packing the filter media cups.

200 micron 4" filter sock (\*sold separately, item # 9001) also fits into the acrylic media cup holder. It provides mechanical filtration, keeping your aquarium crystal clean and clear from free floating debris and detritus.

\*Rinse all filter media in RO/DI water prior to usage.

### Maintenance:

At least once a week, rinse your filter sock and or fiber balls. Change both once a month or sooner depending on the bio-load of your aquarium system.



# Protein Skimmer Placement

Remove the polycarbonate protein skimmer cover plate.

Place Protein skimmer inside protein skimmer chamber..

Move skimmer pump power cord next to cord management hook.

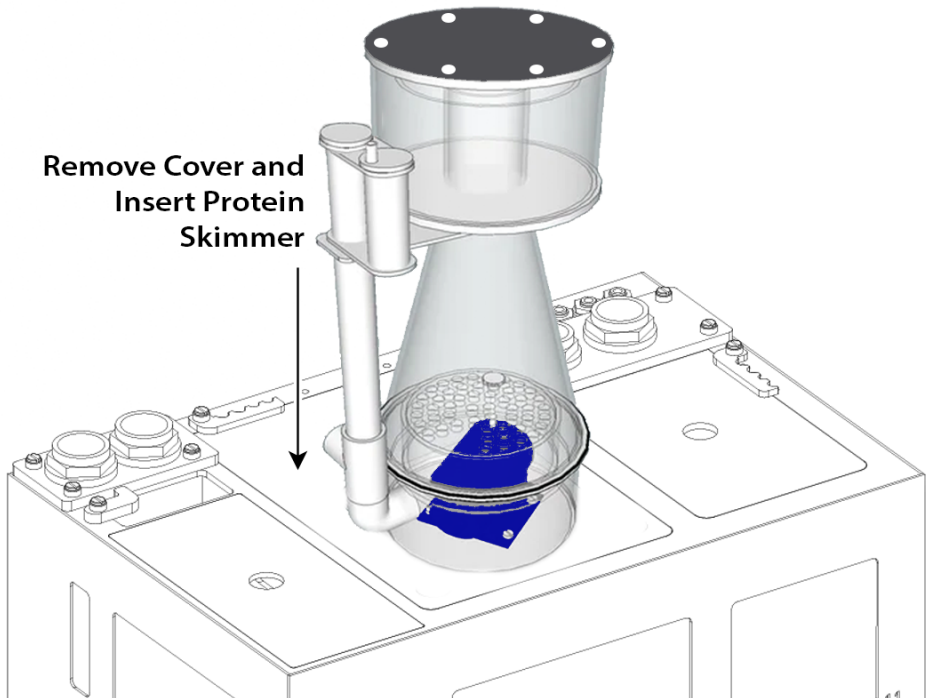
Put polycarbonate cover plate back in place and adjust skimmer to fit through the cover.

Secure the skimmer pump power cord with cord management hook.

Skimmer Size Compatibility:

Refer to the dimensions section of each RFS sump model to determine the opening of each sump.

Note: For Models RFS-22 and RFS-27 this chamber can be used for either a protein skimmer or refugium.



## Refugium / Media Reactor Chamber

Note: Models RFS-22 and RFS-27 have one chamber to be used for a protein skimmer or refugium/media reactor chamber.

Create a refugium or media reactor chamber in this section.

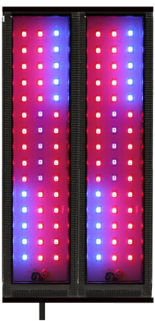
**Refugium** - An area where large macro algae or plants grow by absorbing nutrients that would otherwise be used by nuisance algae i.e. green hair algae or brown film diatoms. Nuisance algae grows on your glass and live rock.

**How to** - Add macro algae i.e. chaetomorpha and or mangroves. Use the Chaetomax Refugium Light (\*Sold separately, item# 7603) inside the bracket.

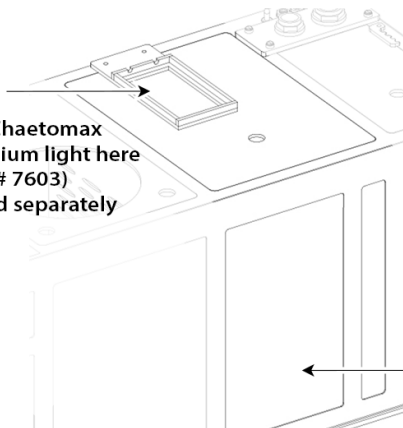
Note: Chaetomax Light Holding Bracket comes included.

**Media Reactor** - An area where filter media is held by reactor(s) that absorb toxic chemicals and algae growing nutrients. The reactor(s) percolate media which increases surface area contact, thus making them more efficient.

**How to** - Add media reactor(s) i.e. Minimax Media Reactor Pro (\*Sold separately, item #7306). Add your preferred media inside the reactor(s).



Add Chaetomax  
Refugium light here  
(Item# 7603)  
\*sold separately



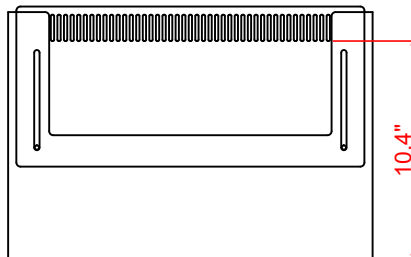
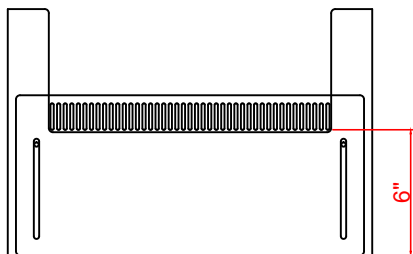
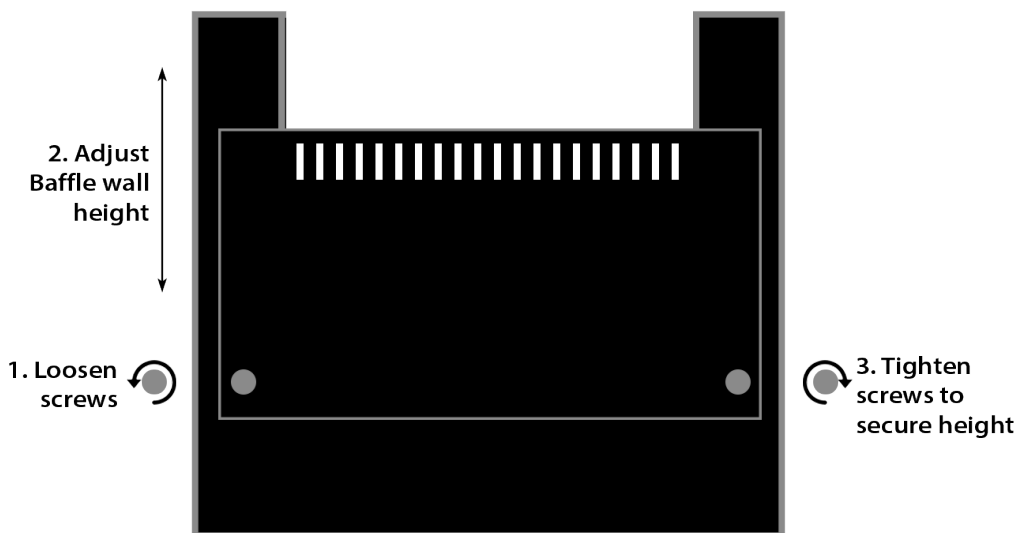
Add Minimax Media  
Reactor here  
(Item# 7306)  
\*sold separately

# Adjust Baffle Wall Height

Adjust the water level of your RFS sump in the protein skimmer/refugium chamber/s. On the adjustable baffle wall, turn the two plastic screws counter clockwise to loosen the wall. Adjust the height of the wall to your preferred height and turn the plastic screws clockwise to lock in the desired height.

This wall is located in the protein skimmer/refugium chamber for models: RFS-22 and RFS-27. And located in the refugium chamber for models: RFS-39 and RFS-50.

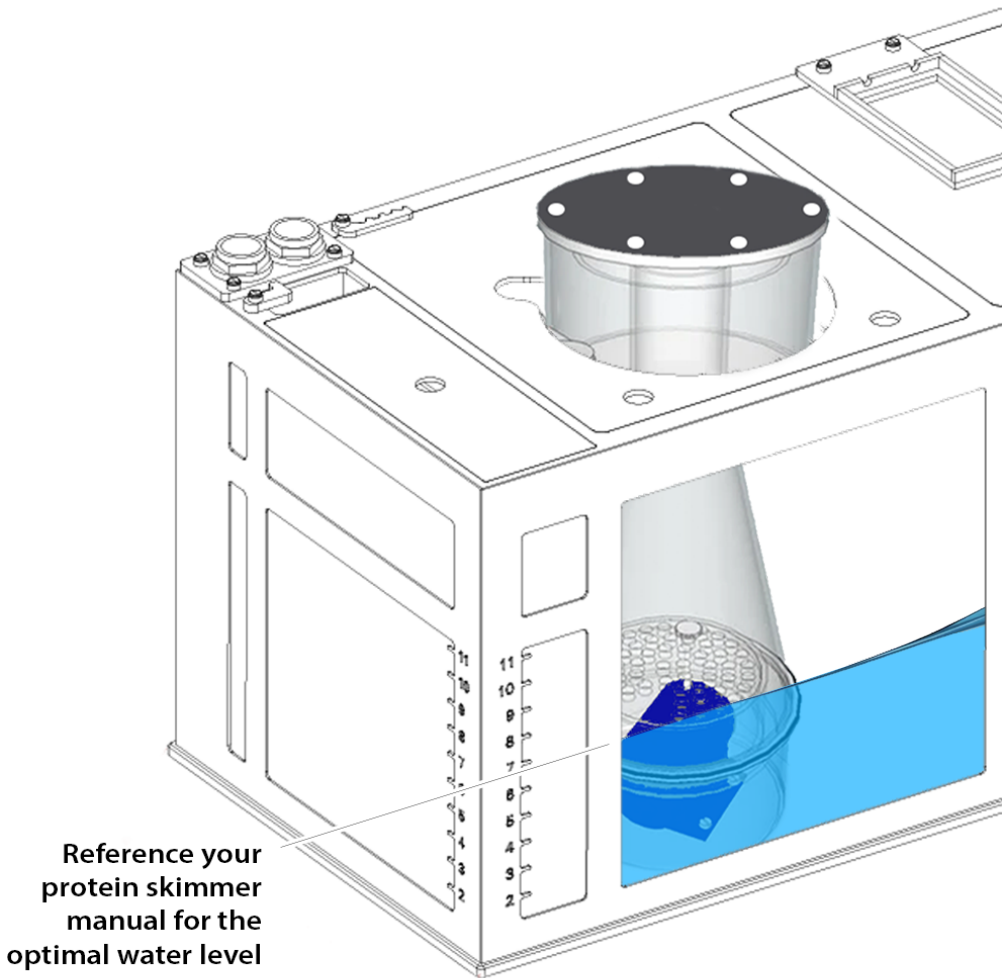
If you are using a protein skimmer please see the next page.





## Adjust Baffle Wall for a Protein Skimmer

If you are using a protein skimmer: Reference your protein skimmer manual for the optimal water level height and use the laser etched water level indicators, located on the front of the sump, to set the water level height.

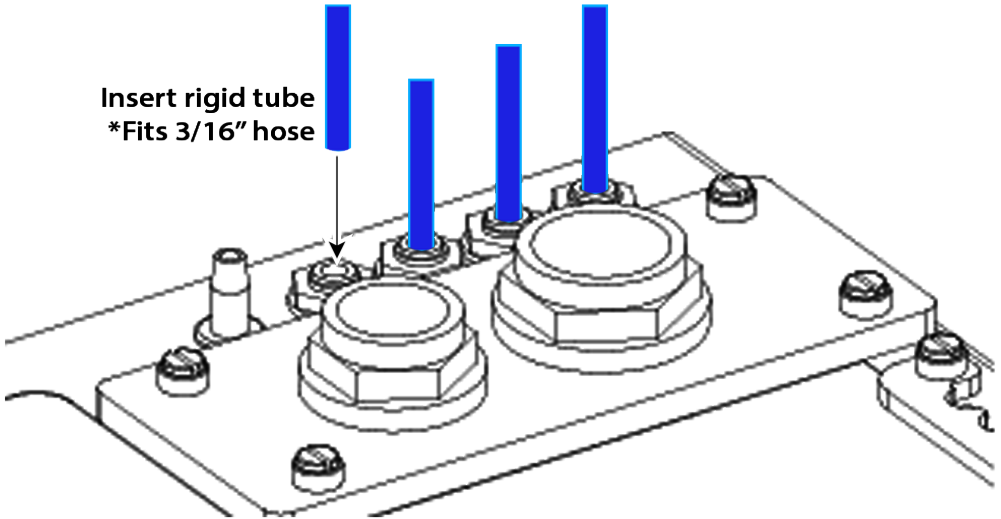


\*Innovative Marine is not responsible for any damages that may be caused by improper maintenance, malfunction, or misuse of other manufacturers products, including protein skimmers.

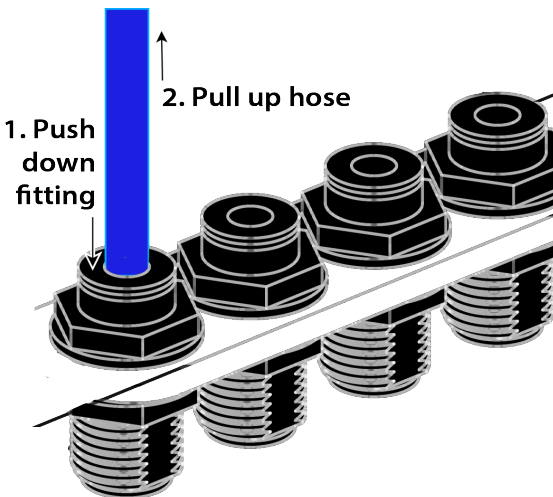
## Black RO/DI Push Fit Fittings

If you are using a chemical dosing unit or other rigid tubing output devices, you may attach up to four rigid tubing lines to the black RO/DI Push Fit Fittings

To insert: push in the 3/16" rigid tubing into the push fit fitting.



To remove: Push in the tube and hold down the inner part of the fitting. While holding down the inner part of the fitting, pull the tube to remove.



## Auto Top Off (ATO) Return Line Adapter

If you are using an auto top off (ATO) system (i.e. item# 7506-P), secure your return hose into the auto top off return adapter.

The adapter is two sided to accommodate hoses with an inner diameter of 1/4" or 1/2". Use hose clamps to secure the hose if needed.

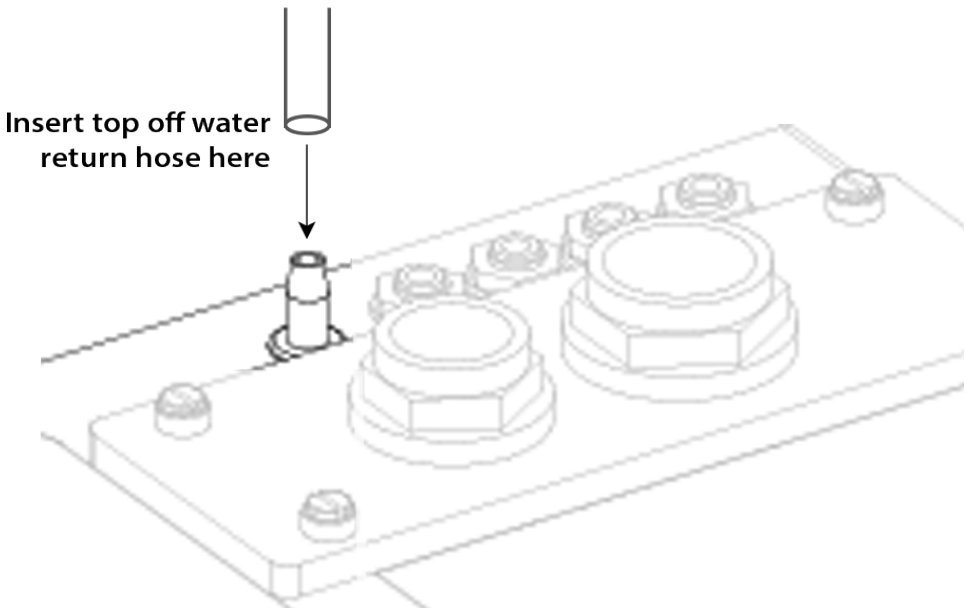
\*Hose clamps not included.



1/2" Hose barb

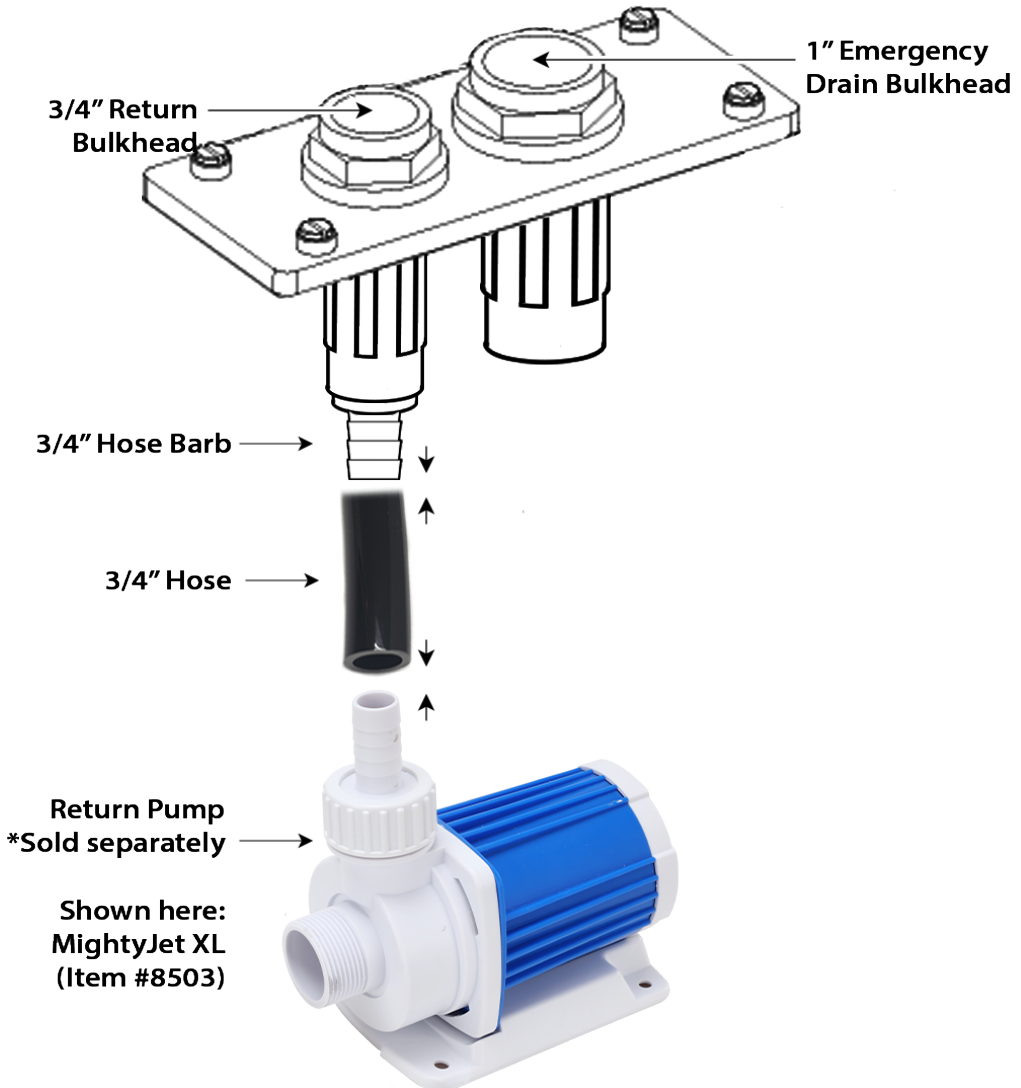


1/4" Hose barb



## Install the Return Pump

- Place the return pump inside the return pump chamber and measure the length of hose needed to connect the return pump to the 3/4" hose barb located underneath the 3/4" PVC return bulkhead.
- Cut the included 3/4" hose.
- Attach the 3/4" hose to 3/4" hose barb.
- Attach your return pump to the 3/4" hose. Return pump needs to have a barbed 3/4" adapter on the outlet.



- Make sure your RFS Sump is set on a level surface to prevent undue stress on the sump from stress and leaks.
- Please pay special attention when leveling your sump.
- Before lifting your sump, make sure your stand is in position and properly leveled and secured.
- Lifting the sump into the stand may require more than one person. Please use proper lifting techniques when lifting all products.
- Lift from the bottom of the sump. DO NOT lift using the sump's edges as this will cause stress on the panels and seals and may cause damaged.
- Once you have placed your sump inside your stand, make sure the sump, stand, and aquarium are all level and in proper secure positions.
- Place a level on edge of sump, if necessary readjust and reposition tank and stand using composite shims.

**If you have any additional questions, give us a call.**

**We have customer service staff that can answer any questions that you have.**

**866-368-7941 | [info@innovative-marine.com](mailto:info@innovative-marine.com)**

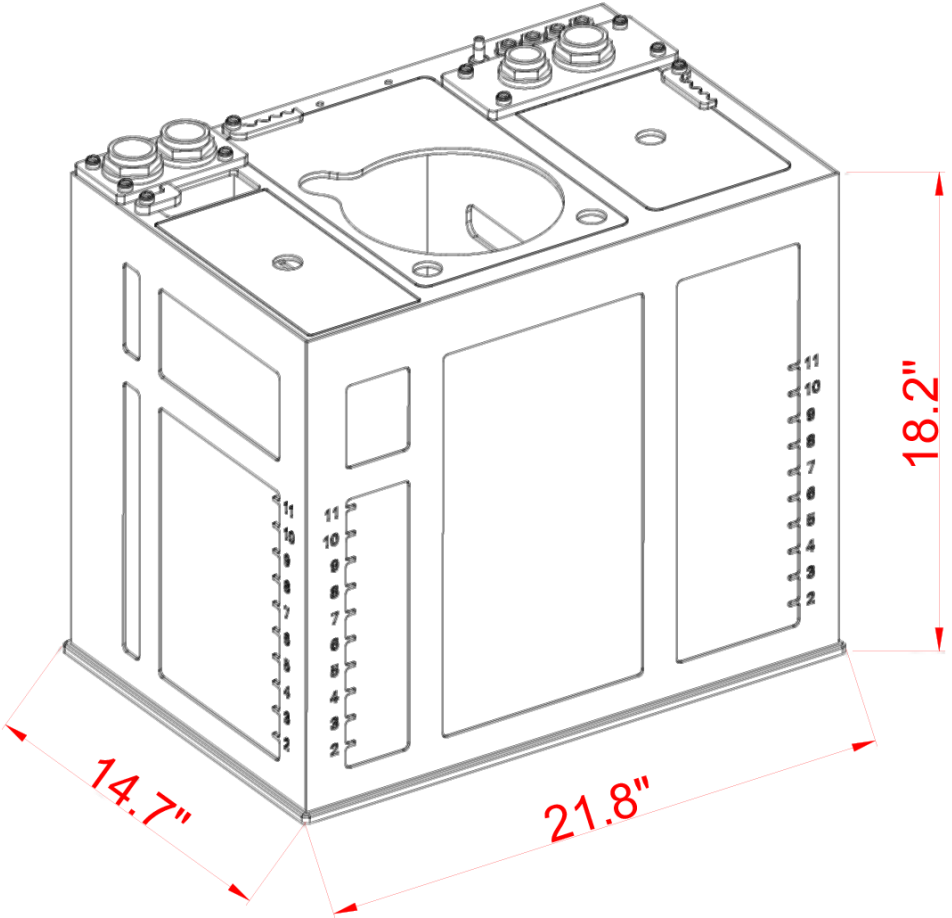
### Find a place for your RFS Sump

- Find a location that can handle the weight of your RFS sump
- Do not install or store the sump where it will be exposed to the weather or to temperatures below freezing. For indoor use only.
- Do not place sump in direct sunlight or near heater vents.
- We recommend ambient room temperature around 25° C/ 77° F.
- Place sump so the weight is evenly distributed across the entire sump.
- Make sure surrounding appliances are waterproof and move anything that might be damaged by salt creep.
- Failure to follow all safety procedures will result in the warranty being voided.
- Innovative Marine is not responsible for any and all damages not related from the usage of Innovative Marine products.
- Innovative Marine is not responsible for any and all damages from improper usage of products.

# Leak Testing and Filling your RFS Sump

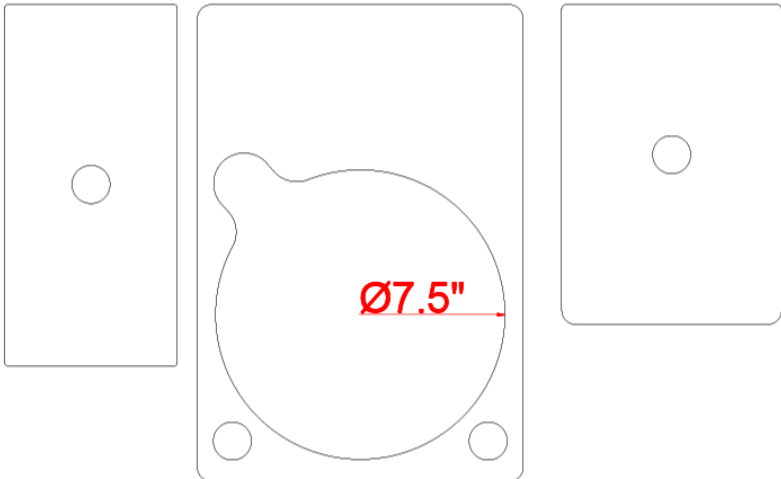
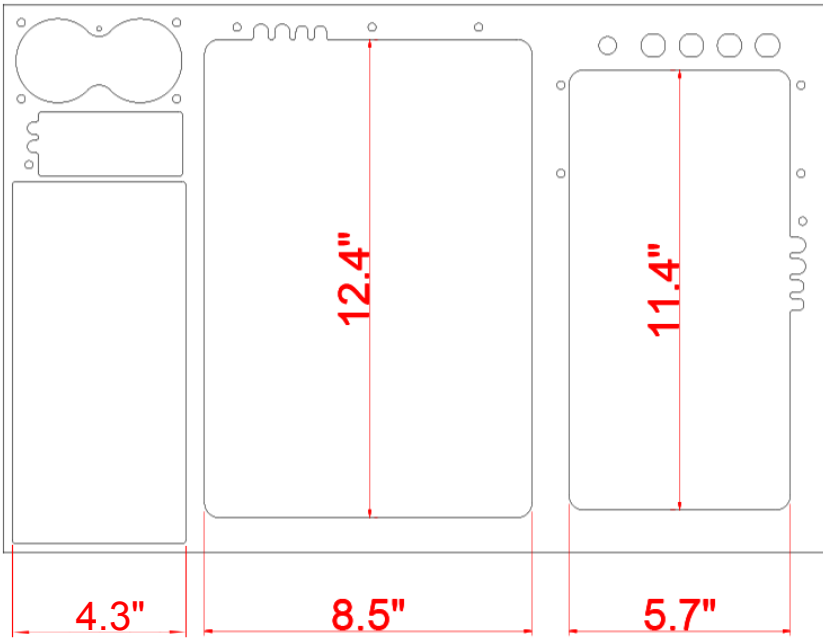
- Find a good location to test your sump.
- A flat/level garage or covered patio is ideal to test in case of an unforeseen leak.
- Slowly fill your sump and let the water naturally flow through the baffle walls.
- Check every 8 hours over the next 24 hours for leaks. If any leaks have been detected please contact your authorized Innovative Marine Dealer immediately.

# 25 Gallon Capacity

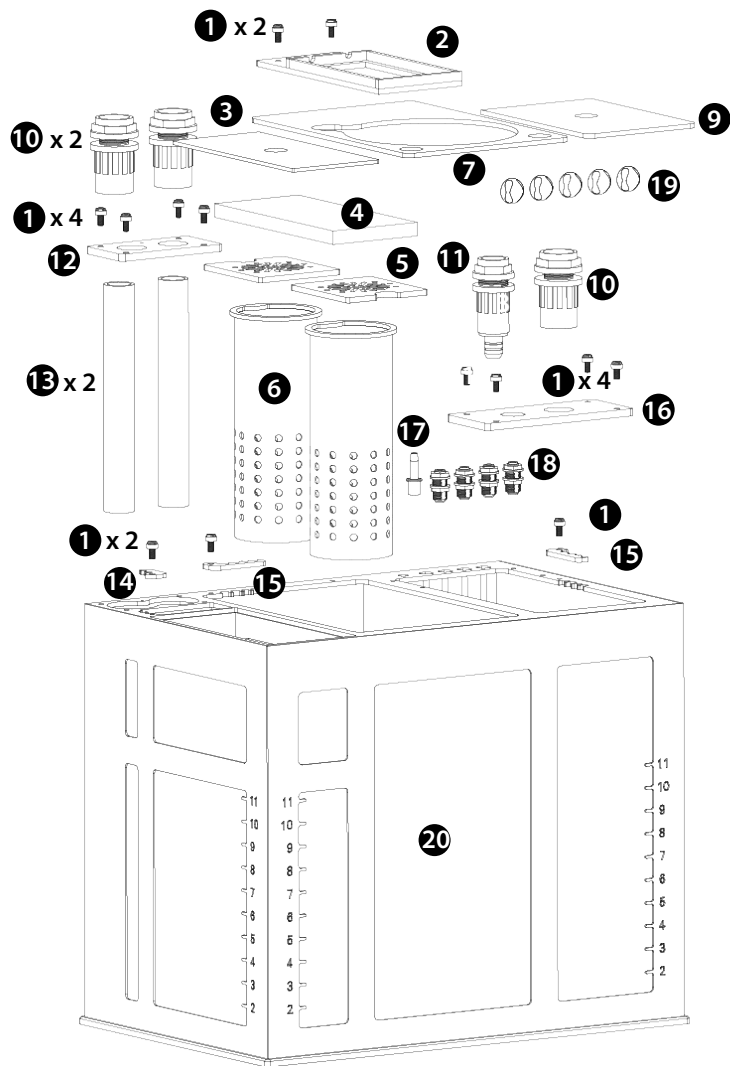




Top View

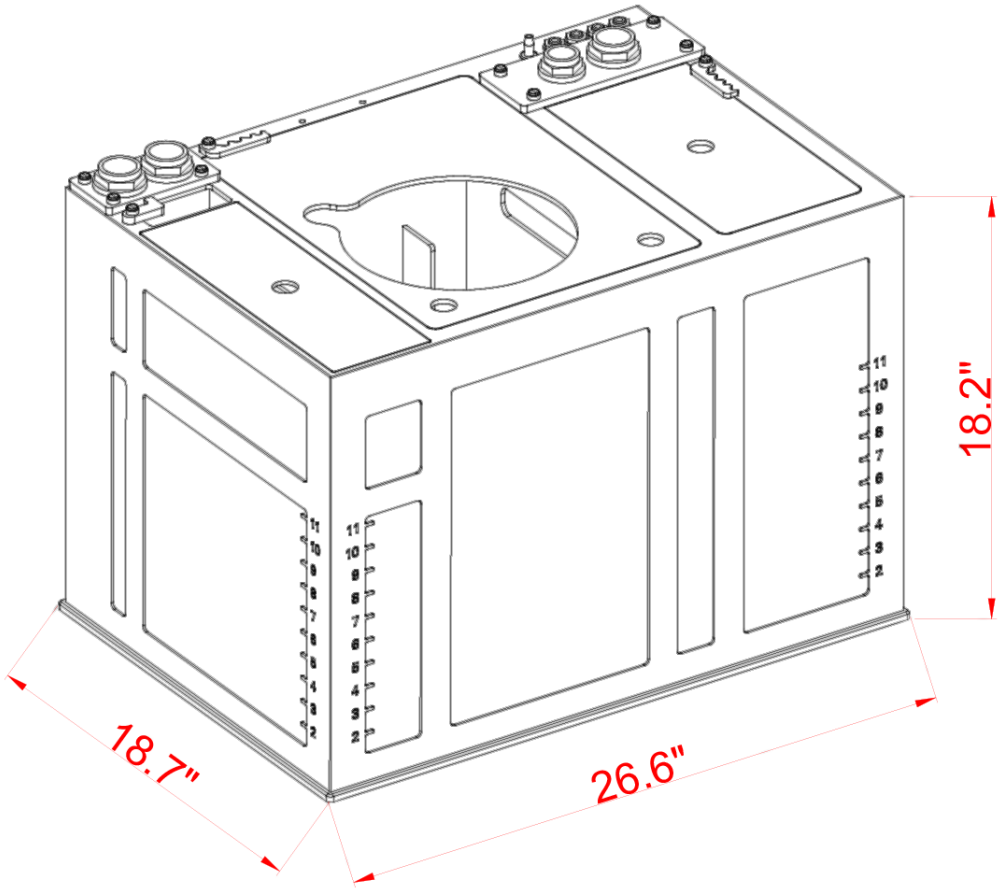


Protein skimmer  
cover plate  
Opening - 7.5"  
Diameter

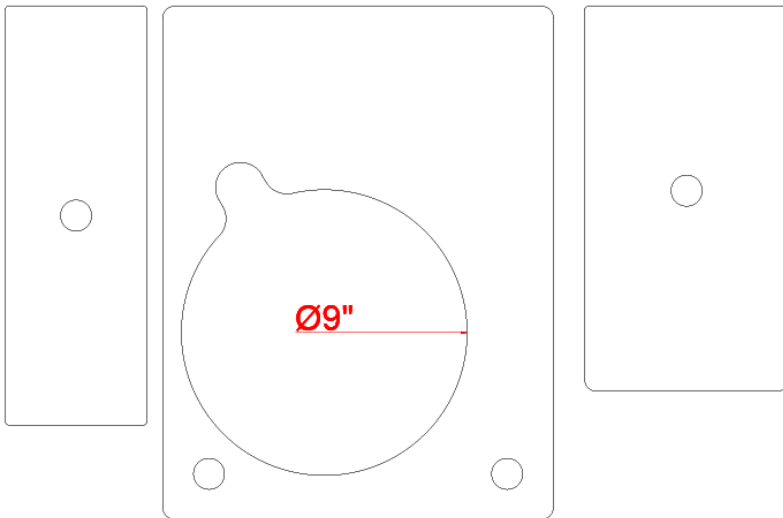
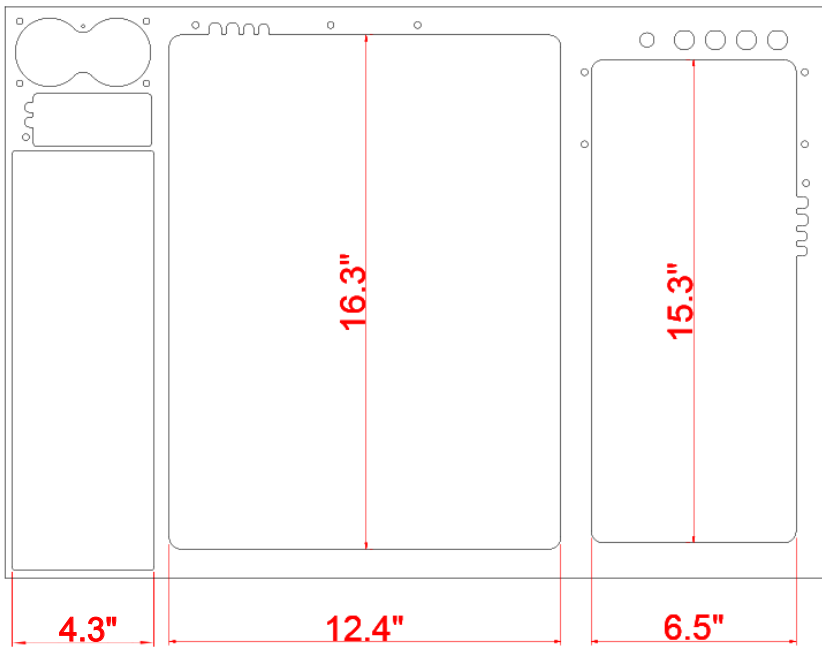


#	Description	Item Code	#	Description	Item Code
1	Plastic Screw x 13	082201	11	3/4" PVC Bulkhead (Barb x Slip)	082211
2	Chaetomax Holder	082202	12	Drain Reinforcement Plate	082212
3	Drain Chamber Cover Plate	082203	13	Drain Pipe x 2	082213
4	Filter Sponge	082204	14	Heater Cord Management Hook	082214
5	Drain Silencing Plate x 2	082205	15	Cord Management Hook x 2	082215
6	Acrylic Filter Media Cup x 2	082206	16	Return Reinforcement Plate	082216
7	Protein Skimmer/Refugium Cover Plate	082207	17	ATO Return Hose Barb 1/4" and 1/2"	082217
8	Refugium Chamber Cover Plate	n/a	18	Black RO/DI Push Fit Fitting x 4	082218
9	Return Pump Chamber Cover Plate	082209	19	Black Adhesive Cord Holder x 5	082219
10	1" PVC Bulkhead (Slip x Slip) x 3	082210	20	Sump Body	082220

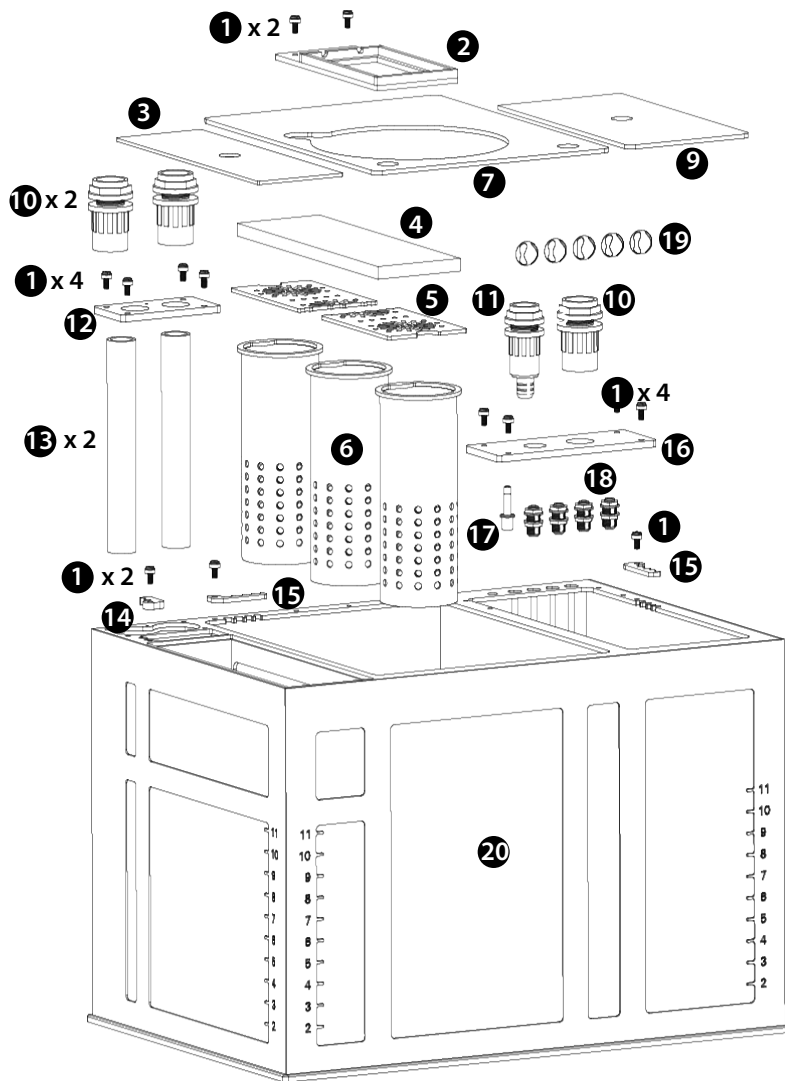
## 39 Gallon Capacity



Top View

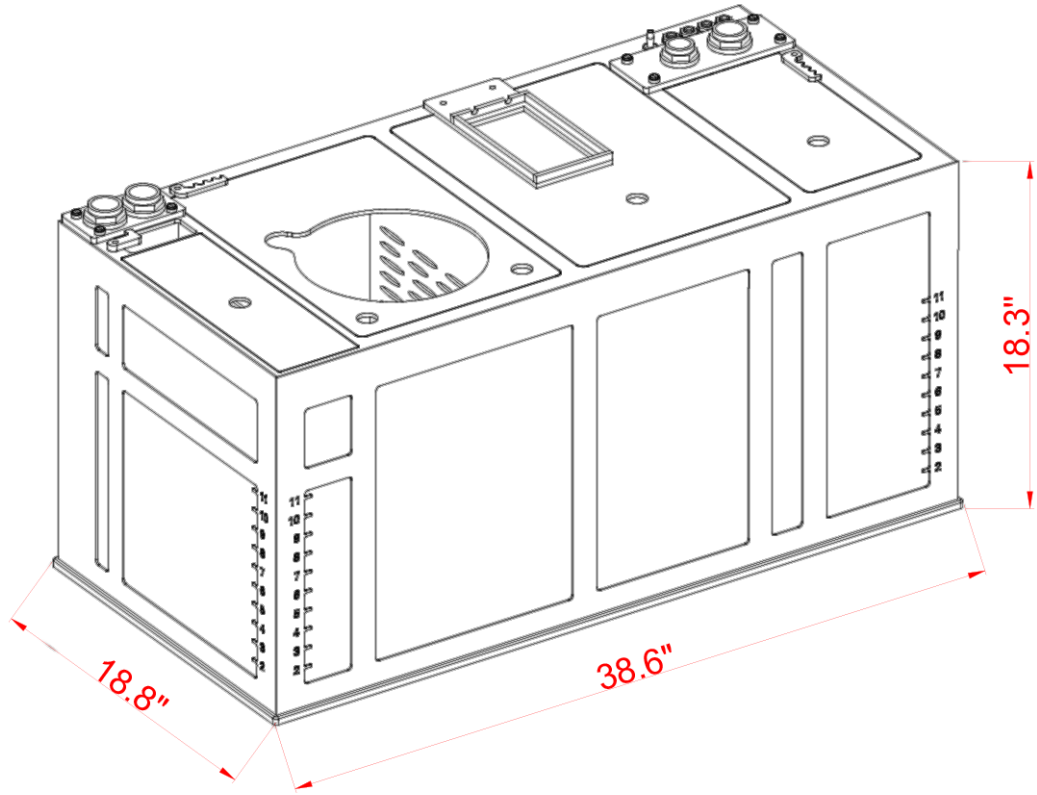


Protein skimmer  
cover plate  
Opening - 9"  
Diameter

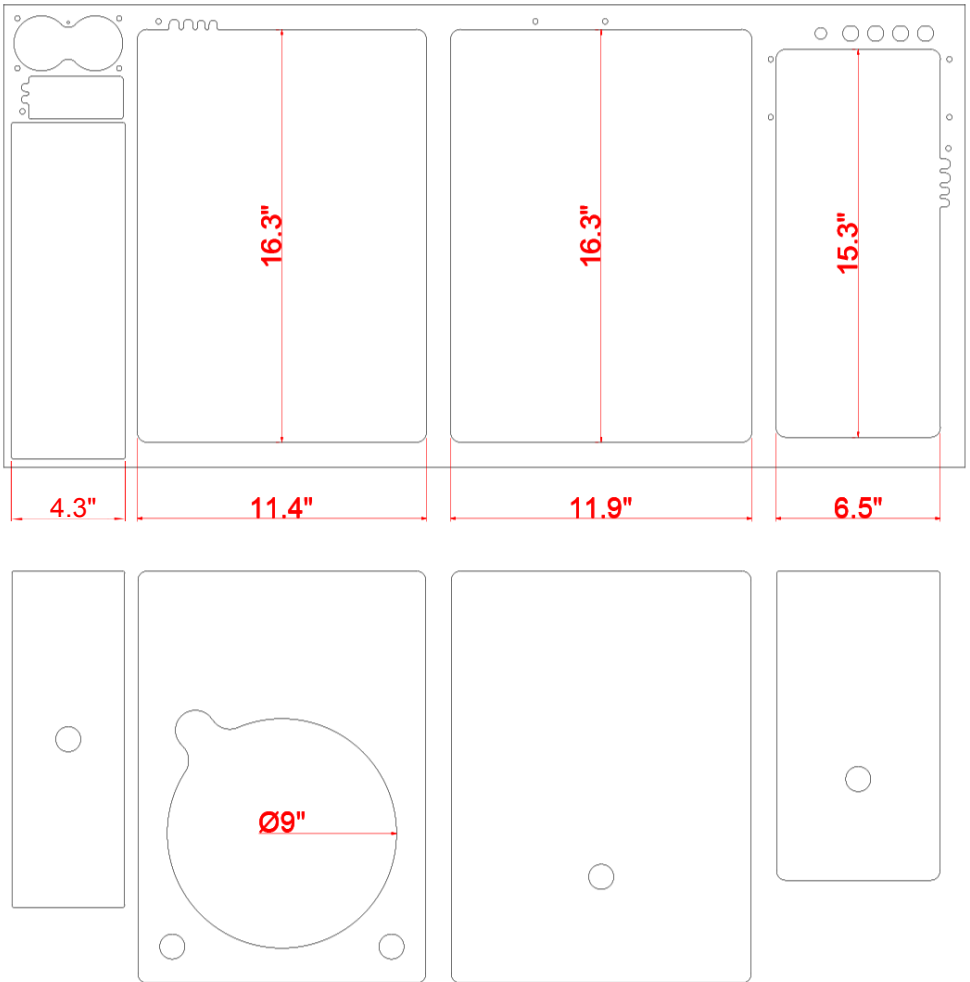


#	Description	Item Code	#	Description	Item Code
1	Plastic Screw x 13	082201	11	3/4" PVC Bulkhead (Barb x Slip)	082211
2	Chaetomax Holder	082202	12	Drain Reinforcement Plate	082212
3	Drain Chamber Cover Plate	082703	13	Drain Pipe x 2	082213
4	Filter Sponge	082704	14	Heater Cord Management Hook	082214
5	Drain Silencing Plate x 2	082705	15	Cord Management Hook x 2	082215
6	Acrylic Filter Media Cup x 3	082206	16	Return Reinforcement Plate	082716
7	Protein Skimmer/Refugium Cover Plate	082707	17	ATO Return Hose Barb 1/4" and 1/2"	082217
8	Refugium Chamber Cover Plate	n/a	18	Black RO/DI Push Fit Fitting x 4	082218
9	Return Pump Chamber Cover Plate	082709	19	Black Adhesive Cord Holder x 5	082219
10	1" PVC Bulkhead (Slip x Slip) x 3	082210	20	Sump Body	082720

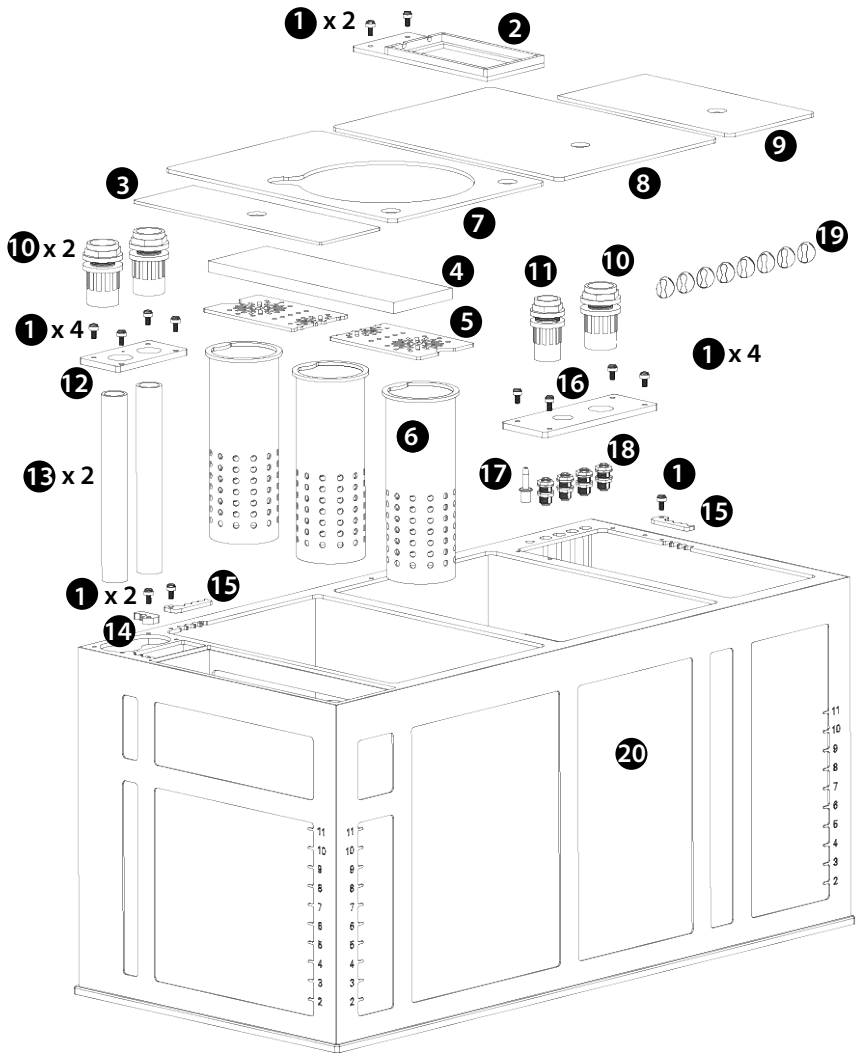
## 57 Gallon Capacity



Top View



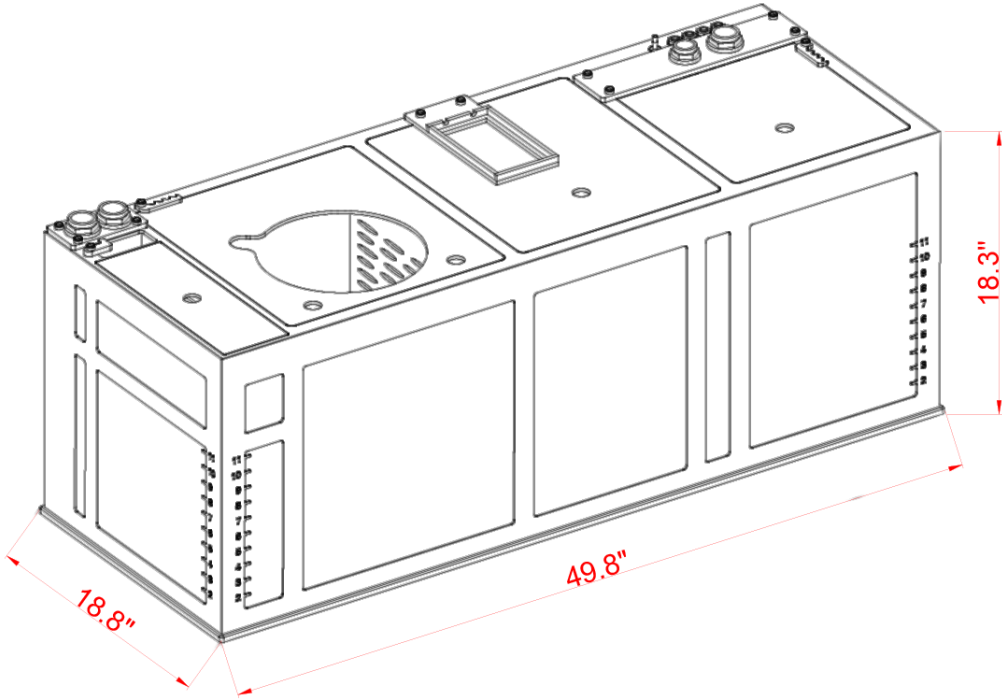
**Protein skimmer  
cover plate  
Opening - 9"  
Diameter**



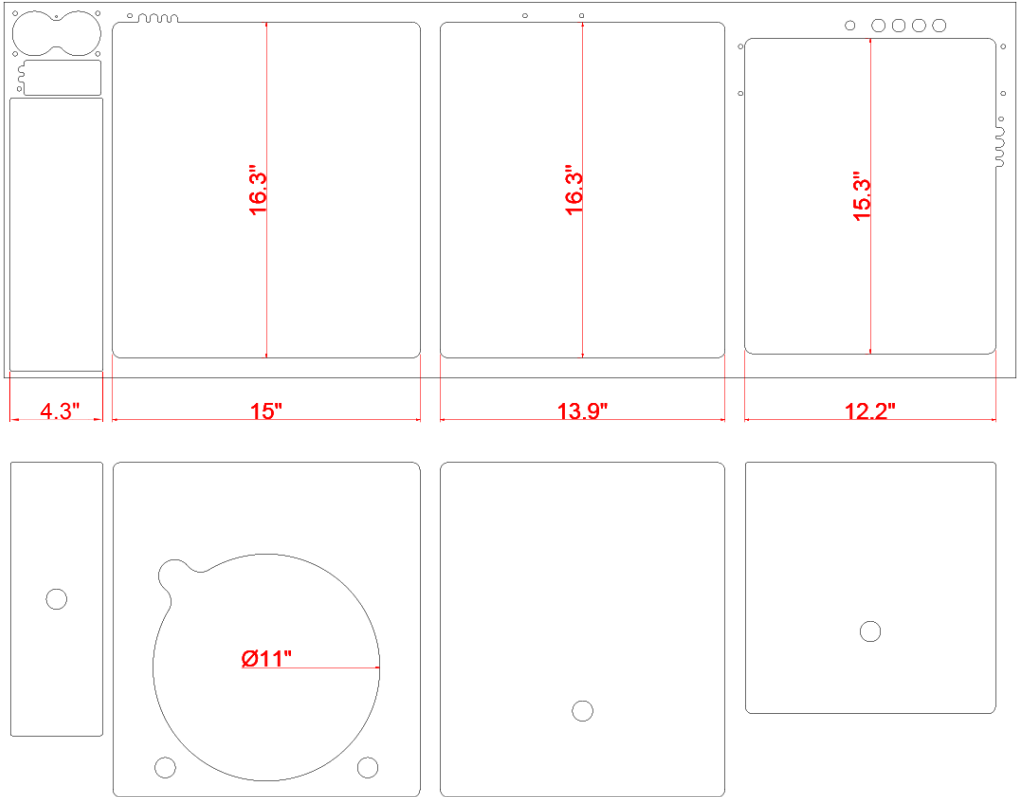
#	Description	Item Code	#	Description	Item Code
1	Plastic Screw x 13	082201	11	3/4" PVC Bulkhead (Barb x Slip)	082211
2	Chaetomax Holder	082202	12	Drain Reinforcement Plate	082212
3	Drain Chamber Cover Plate	082703	13	Drain Pipe x 2	082213
4	Filter Sponge	082704	14	Heater Cord Management Hook	082214
5	Drain Silencing Plate x 2	082705	15	Cord Management Hook x 2	082215
6	Acrylic Filter Media Cup x 3	082206	16	Return Reinforcement Plate	082716
7	Protein Skimmer Chamber Cover Plate	083907	17	ATO Return Hose Barb 1/4" and 1/2"	082217
8	Refugium Chamber Cover Plate	083907	18	Black RO/DI Push Fit Fitting x 4	082218
9	Return Pump Chamber Cover Plate	082709	19	Black Adhesive Cord Holder x 8	083919
10	1" PVC Bulkhead (Slip x Slip) x 3	082210	20	Sump Body	083920



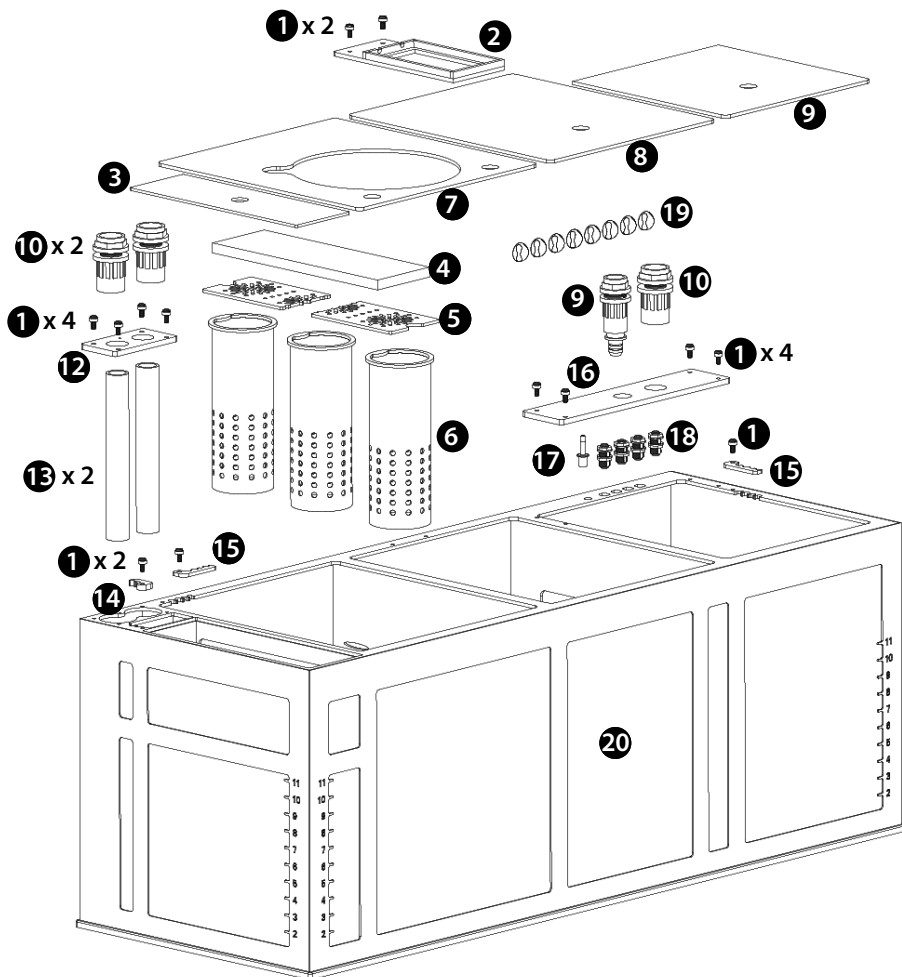
## 74 Gallon Capacity



Top View



**Protein skimmer  
cover plate  
Opening - 11"  
Diameter**



#	Description	Item Code	#	Description	Item Code
1	Plastic Screw x 13	082201	11	3/4" PVC Bulkhead (Barb x Slip)	082211
2	Chaetomax Holder	082202	12	Drain Reinforcement Plate	082212
3	Drain Chamber Cover Plate	082703	13	Drain Pipe x 2	082213
4	Filter Sponge	082704	14	Heater Cord Management Hook	082214
5	Drain Silencing Plate x 2	082705	15	Cord Management Hook x 2	082215
6	Acrylic Filter Media Cup x 3	082206	16	Return Reinforcement Plate	085016
7	Protein Skimmer Chamber Cover Plate	085007	17	ATO Return Hose Barb 1/4" and 1/2"	082217
8	Refugium Chamber Cover Plate	085007	18	Black RO/DI Push Fit Fitting x 4	082218
9	Return Pump Chamber Cover Plate	085009	19	Black Adhesive Cord Holder x 8	083919
10	1" PVC Bulkhead (Slip x Slip) x 3	082210	20	Sump Body	085020

Discover more at:

[www.innovative-marine.com](http://www.innovative-marine.com)



## WARRANTY INFORMATION

### LIMITED ONE YEAR WARRANTY - NUVO RFS Sumps

The NUVO RFS Sumps have a one year limited warranty. The NUVO RFS Sumps are warranted to the original purchaser against defective material and workmanship for one year from the date of original purchase. This warranty is valid only under the following conditions: additions, modifications, or changes made to the product by the purchaser and not by the manufacturer shall void this warranty. Damages brought on by abuse, misapplication, or mishandling also voids this warranty.

This warranty is limited to the repair or replacement of the product at the discretion of the manufacturer. This warranty does not cover personal injury, property loss, including livestock or damage (direct, incidental, or consequential) arising out of use of this product. This warranty gives you specific rights and you may also have other rights, which may vary from state to state.

The Product Registration Card must be filled out completely and returned within 14 days from the date of purchase. Failure to do so will void this warranty.

**A proof of purchase from an authorized dealer must be provided when making a warranty claim.**

For Warranty Claims please contact our Customer Care Department at 866-368-7941

A RMA# must be issued before sending any product back to Innovative Marine. Products sent back to Innovative Marine without a RMA# will not be accepted. Warranty service on products will not extend the original warranty period.

**Email: [warranty@innovative-marine.com](mailto:warranty@innovative-marine.com)**

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